CONTENTS FOR VOLUME 15, 1983

Thomas G. Stewart and John England	1–17	Holocene Sea-ice Variations and Paleoenvironmental Change, Northernmost Ellesmere Island, N.W.T., Canada
Robert D. Hall and Janet S. Heiny	19–52	Glacial and Postglacial Physical Stratigraphy and Chronology, North Willow Creek and Cataract Creek Drainage Basins, Eastern Tobacco Root Range, Southwestern Montana, U.S.A.
I. E. Whitehouse and M. J. McSaveney	53–64	Diachronous Talus Surfaces in the Southern Alps, New Zealand, and Their Implications to Talus Accumulation
Greg A. Olyphant	65–75	Analysis of the Factors Controlling Cliff Burial by Talus within Blanca Massif, Southern Colorado, U.S.A.
Scott A. Isard	77–89	Estimating Potential Direct Insolation to Alpine Terrain
J. D. Jacobs and J. T. Andrews	91–96	A Note on Solar Radiation Measurements on Cumberland Peninsula, Baffin Island, N.W.T., Canada, in Summer, 1970 to 1979
Donald C. Thomas and Janet Edmonds	97–105	Rumen Contents and Habitat Selection of Peary Caribou in Winter, Canadian Arctic Archipelago
Eigil Reimers, David R. Klein, and Rolf Sørumgård	107–118	Calving Time, Growth Rate, and Body Size of Norwegian Reindeer on Different Ranges
Claudia L. Jolls and Jane C. Bock	119–126	Seedling Density and Mortality Patterns among Elevations in *Sedum lanceolatum*
J. L. Hadley and W. K. Smith	127–135	Influence of Wind Exposure on Needle Desiccation and Mortality for Timberline Conifers in Wyoming, U.S.A.
Book Reviews	137–140	*Veröffentlichungen des Oesterreichischen MaB-Hochgebirgsprogramms Hohe Tauern.* Band 1, 2. Edited by Alexander Cernusca
		Antarctic Geoscience. Edited by Campbell Craddock
		Recent Publications
Troy L. Péwé	145–156	Alpine Permafrost in the Contiguous United States: A Review
Thomas D. Hamilton, Thomas A. Ager, and Stephen W. Robinson	157–168	Late Holocene Ice Wedges Near Fairbanks, Alaska, U.S.A.: Environmental Setting and History of Growth
G. M. MacDonald	169–180	Holocene Vegetation History of the Upper Natla River Area, Northwest Territories, Canada
Richard G. Reider	181–192	A Soil Catena in the Medicine Bow Mountains, Wyoming, U.S.A., with Reference to Paleoenvironmental Influences
Giuseppe Orombelli and Stephen C. Porter	193–200	Lichen Growth Curves for the Southern Flank of the Mont Blanc Massif, Western Italian Alps
Van S. Williams	201–211	Present and Former Equilibrium-line Altitudes near Mount Everest, Nepal and Tibet

William J. Stringer	213–222	One-dimensional Model of Ice Motion in Western Norton Sound, Alaska, U.S.A.
William L. Baker	223–240	Alpine Vegetation of Wheeler Peak, New Mexico, U.S.A.: Gradient Analysis, Classification, and Biogeography
Werner Frey	241–251	The Influence of Snow on Growth and Survival of Planted Trees
John E. Hobbie, Teresa L. Corliss, and Bruce J. Peterson	253–259	Seasonal Patterns of Bacterial Abundance in an Arctic Lake and Arctic Streams
N. E. Grulke and L. C. Bliss	261–265	A Note on Winter Seed Rain in the High Arctic
James B. McGraw, Ann L. Chester, and Lee Stuart	267–269	A Note on July Senescence in Tundra Plants at Eagle Creek, Alaska, U.S.A.
James S. Gardner	271–274	Observations on Erosion by Wet Snow Avalanches, Mount Rae Area, Alberta, Canada
Book Reviews	275–279	*Research in Glacial, Glaciofluvial and Glaciolacustrine Systems: Proceedings of the 6th Guelph Symposium in Geomorphology, 1980.* Edited by R. Davidson-Arnott, W. Nickling, and B. D. Fahey
		Aridnye gory SSSR: Priroda i Geograficheski modeli florogeneza. O. E. Agakhaniants
		Big Game in Alaska. Morgan Sherwood
		Peat Stratigraphy and Climatic Change. K. E. Barber
		Handbook of Snow. Edited by D. M. Gray and D. Hale
List of Critical Reviewers	280	
John L. Innes	285–294	Size Frequency Distribution as a Lichenometric Technique: An Assessment
Roy H. Haines-Young	295–305	Size Variation of *Rhizocarpon* on Moraine Slopes in Southern Norway
G. Vilks and P. J. Mudie	307–320	Evidence for Postglacial Paleoceanographic and Paleoclimatic Changes in Lake Melville, Labrador, Canada
Robert Gilbert and Michael Church	321–332	Contemporary Sedimentary Environments on Baffin Island, N.W.T., Canada: Reconnaissance of Lakes on Cumberland Peninsula
Jørn-Ole Andreasen	333–338	Basal Sliding at the Margin of the Glacier Austre Okstindbre, Nordland, Norway
Colin K. Ballantyne and John A. Matthews	339–349	Desiccation Cracking and Sorted Polygon Development, Jotunheimen, Norway
Jon M. Hassinger and Paul A. Mayewski	351–368	Morphology and Dynamics of the Rock Glaciers in Southern Victoria Land, Antarctica
Leif Kullman	369–382	Short-term Population Trends of Isolated Tree-limit Stands of *Pinus sylvestris* L. in Central Sweden

Nathan B. Benedict	383–396	Plant Associations of Subalpine Meadows, Sequoia National Park, California, U.S.A.
E. F. Karlin and L. C. Bliss	397–404	Germination Ecology of *Ledum groenlandicum* and *Ledum palustre* ssp. *decumbens*
John F. Fox	405–411	Germinable Seed Banks of Interior Alaskan Tundra
T. R. Moore	413–418	Winter-time Litter Decomposition in a Subarctic Woodland
Correspondence William W. Locke III	419	Discussion of "Size Frequency Distributions as a Lichenometric Technique: an Assessment" by J. L. Innes
Book Notices	420	
D. C. Ford	425–426	Preface
D. C. Ford	427–436	The Physiography of the Castleguard Karst and Columbia Icefields Area, Alberta, Canada
D. C. Ford, P. L. Smart, and R. O. Ewers	437–450	The Physiography and Speleogenesis of Castleguard Cave, Columbia Icefields, Alberta, Canada
J. Schroeder and D. C. Ford	451–461	Clastic Sediments in Castleguard Cave, Columbia Icefields, Alberta, Canada
M. Gascoyne, A. G. Latham, R. S. Harmon, and D. C. Ford	463–470	The Antiquity of Castleguard Cave, Columbia Icefields, Alberta, Canada
C. C. Smart	471–486	The Hydrology of the Castleguard Karst, Columbia Icefields, Alberta, Canada
T. C. Atkinson, P. L. Smart, and T. M. L. Wigley	487–502	Climate and Natural Radon Levels in Castleguard Cave, Columbia Icefields, Alberta, Canada
R. S. Harmon, T. C. Atkinson, and J. L. Atkinson	503–516	The Mineralogy of Castleguard Cave, Columbia Icefields, Alberta, Canada
Jean Roberge and Daniel Caron	517–522	The Occurrence of an Unusual Type of Pisolite: The Cubic Cave Pearls of Castleguard Cave, Columbia Icefields, Alberta, Canada
T. C. Atkinson	523–536	Growth Mechanisms of Speleothems in Castleguard Cave, Columbia Icefields, Alberta, Canada
M. Gascoyne and D. E. Nelson	537–542	Growth Mechanisms of Recent Speleothems from Castleguard Cave, Columbia Icefields, Alberta, Canada, Inferred from a Comparison of Uranium-series and Carbon-14 Age Data
John R. Holsinger, John S. Mort and Anneliese D. Recklies	543–549	The Subterranean Crustacean Fauna of Castleguard Cave, Columbia Icefields, Alberta, Canada, and its Zoogeographic Significance
D. C. Ford	551–554	Concluding Discussion
Contents and Index for Volume 15, 1983	555–560	